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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,467	12/15/2003	Luna H. Chiu	WJT08-0054 (JSF001-0003)	3463
7590 William J. Tucker 14431 Gollad Drive Box #8 Malakoff, TX 75148			EXAMINER HAM, SEUNGSOOK	
			ART UNIT 2817	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/736,467

Applicant(s)

CHIU ET AL.

Examiner

Seungsook Ham

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 2 is objected to because of the following informalities:

In claim 2, line 2, before "includes", insert --further--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2 and 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, "includes varactor mounting pads attaching tunable varactors *by using mask patterns for coupling lines and said varactor mounting pads*" is vague and indefinite as to whether "coupling lines" are part of the "varactor mounting pads."

In claims 5 and 10, "to incorporate tunable varactors via said photodefinable process" is vague and indefinite as to what is meant by "incorporate". It appears that the photodefinable process is used for metallization (e.g., mounting pads, coupling lines, etc.) in a dielectric block (see claim 1) rather than used for making tunable varactor (where in the specification describes such method?).

In claim 8, "metallization of tunable varactors deposited via a photodefinable process" is vague and indefinite as to how tunable varactors are metallized. It should

be noted that varactors are an electronic component and do not require any metallization.

In claim 11, "at least one photodefined metallic patterned surface" is vague and indefinite as to how "at least one photodefined metallic patterned surface" is structurally related to the elements in claim 1.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Newell et al. (US '215, insofar as understood).

Newell et al. (fig. 1) et al. discloses a signal block resonator/RF filter comprising: a dielectric block having a plurality of through-holes 26-28; each through-holes extending from a top surface to a bottom surface; and a metallization disposed onto all surface of the block 16, 18, 20, 22, 24, 40, 42, 44 (col. 2, lines 30-36), input/output couplings 32, 36, wherein the metallization includes varactor mounting pads, 40, 42 and coupling lines 42, 44 (note the coupling line 42 is coupled to the varactors 50 (see also column 5, lines 5-10) in left side, and also used as a coupling line between the metallized patterns 42 and 44 (col. 5, lines 14-20).

The method steps, "a metallization deposited via a photodefinable process" (see claim 1), "by using mask patterns..." (see claim 1), "said electrode pattern consisting of

Art Unit: 2817

a photodefinable metallization" (see claim 5), and "via said photodefinable process" (see claim 5, line 8) are a product-by-process limitation. It should be noted that the determination of the patentability of product-by-process claim is based on the product itself, and does not depend on its method of production (see MPEP 2113). The photodefinable process does not provide any distinctive structural characteristics to the final product; thus, the device of Newell et al. is the same as the applicant's claimed invention. Moreover, in claim 1, lines 6-7, "by using mask patterns for coupling lines and said varactors mounting pads" appears to be an intermediate step/product (i.e., the final product do not has mask patterns since mask patterns are removed once the final product is made) which does not reflect the final product, thus it cannot be given any patentable weight.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newell et al. (US '215) in view of Kosugi et al. (EP 208,424).

Newell et al. is applied as above. Newell does not show providing at least one additional block (or providing a resonator in a separate dielectric block) and connecting the dielectric block through an iris. However, such technique is well known in the art.

Kosugi et al. (figs. 3-5) discloses a dielectric resonator/filter having a plurality of dielectric blocks 1 with through-holes 2, and two dielectric blocks are connected by an iris 6. Moreover, Kosugi et al. shows a resonator/filter having a single dielectric block with a plurality of through holes (see figs. 1 and 2) which is similar to the device of Newell et al. and addresses the problem of the size (p. 2, second paragraph).

It would have been obvious to one of ordinary skill in the art to provide separate dielectric block for each through-hole and connected by an iris in the device of Newell et al. to reduce the size of the resonator/filter as taught by Kosugi et al. (p. 2, third paragraph).

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newell et al. (US '215) in view of Endou et al. (US Pat. App. Pub. '973).

Newell et al. is applied as above. Newell et al. is silent as to whether at least one surface of the block or a metallic patterned surface is less than 4mm square.

Endou et al. teaches that it is a conventional practice in a dielectric filter technology that the length of the dielectric block is about 3.5mm to 4mm (paragraph [0067]).

Thus, it would have been obvious to one of ordinary skill in the art to provide a surface of the block/metallized surface having less than 4mm square in the device of Newell et al. since such length is well known in the art as taught by Endou et al. (see paragraph [0067]).

### ***Response to Arguments***

Applicant's arguments filed 3/19/07 have been fully considered but they are not persuasive.

The applicant stated, "[a]pplicant submits that none of the cited art enables varactors to be incorporated therein thus submits with the present amendment, the 102 rejection have been traversed" (see REMARKS, p. 8, second paragraph). There were no specific arguments presented as to why the varactors shown in Newell et al. does not meet the claim limitations. It should be noted that Newell et al. clearly shows varactors mounted on the dielectric block (see figs. 1 and 2). Since, the applicant failed to argue the rejection specifically, the rejection is still stand.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

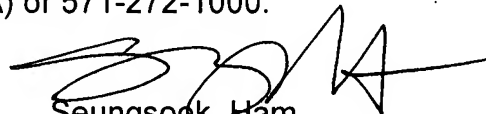
Art Unit: 2817

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Seungsook Ham  
Primary Examiner  
Art Unit 2817

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